

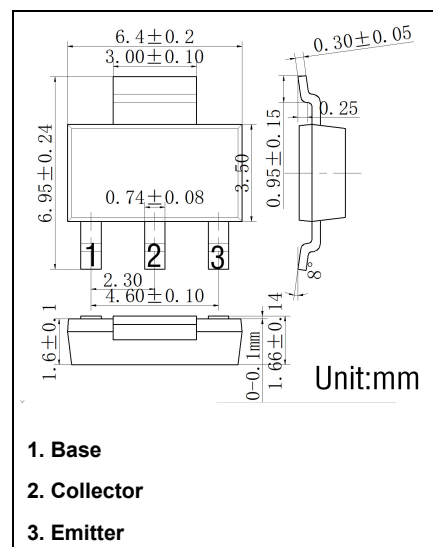
SOT-223 Plastic-Encapsulate Transistors

ALJ3055

NPN Silicon Power Transistor

Features

- High current (max. 6A).
- Low voltage (max. 60V).
- 2.0W Surface Mount Complementary



Maximum Ratings (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector Base Voltage	100	V
V _{CER}	Collector Emitter Voltage	70	V
V _{CEO}	Collector Emitter Voltage	60	V
V _{EBO}	Emitter Base Voltage	7	V
I _C	Collector Current	6	A
I _B	Base Current	3	A
P _D	Collector Power Dissipation	2	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-65 ~ +150	°C
R _{θJA}	Thermal Resistance from Junction to Ambient	62.5	°C/W

Electrical Characteristics (T_a=25°C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C = 30mA, I _B = 0	60			V
V _{(BR)CER}	Collector-emitter breakdown voltage	I _C = 30mA, R _{BE} = 100Ω	70			V
I _{CEO}	Collector cut-off current	V _{CE} = 30V, I _B = 0			700	μA
I _{CEV}	Emitter cut-off current	V _{CE} = 100V, V _{EB} = 1.5V			1.0	mA
h _{FE(1)*}	DC current gain	V _{CE} = 4V, I _C = 4A	20		70	
h _{FE(2)*}		V _{CE} = 4V, I _C = 6A	5.0			
V _{CE(sat)}	Collector-emitter saturation voltage	I _C = 4A, I _B = 400mA			1.1	V
V _{BE(on)}	Base-emitter on voltage	V _{CE} = 4V, I _C = 4A			1.5	V
f _T	Transition frequency	V _{CE} = 10V, I _C = 500mA, f = 1.0MHz	2.5			MHz